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Chalk it up to experience

Economy of a classroom

Volume 47 Issue 17 | May 7, 2010 | www.ualberta.ca/folio

U of A one of Canada's top 50 'greenest' employers

Ileiren Poon

The University of Alberta is once again gold when it comes to going green when it was recently named one of Canada's Top 50 Green Employers by the Canada's Greenest Employers.

The designation recognizes employers that lead the nation in creating a culture of environmental awareness and who have developed exceptional Earth-friendly initiatives, attracting people to their organizations because of their environmental leadership.

"Being named one of Canada's Top 50 Greenest Employers for the second year in a row is great recognition of the university's sustainability success story and is indicative of the time and energy our staff invests in Earth-friendly initiatives like green cleaning, energy management and composting," said Trina Innes, director of the U of A's Office of Sustainability. "The environmental sustainability of an institution such as ours is becoming an increasingly important consideration for students, faculty and staff members when evaluating where they want to work and study."

"Receiving this designation shows prospective employees and students that the university is committed to sustainability on campus."

Some of the projects highlighted in the decision include the establishment of the Office of Sustainability, as well as the convening of the World Café on Campus Climate Responsibility in 2008 and 2009, where students, faculty, staff and community partners gathered to discuss and debate climate change responsibilities and the building of a sustainable campus.

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Ileiren Poon

The University of Alberta will take a big step forward in its efforts to treat and cure virus-based diseases after receiving a \$28-million gift April 23 from the Li Ka Shing (Canada) Foundation and \$52.5 million in new related funding from the Government of Alberta.

The donation—the largest cash gift in the university's history—will help establish the Li Ka Shing Institute of Virology and add the U of A to a global health-science research network facilitated by the Li Ka Shing Foundation.

"This gift will transform the learning and discovery experience of students and faculty," said Indira

Samarasekera, president and vice-chancellor of the university, at the announcement. "It will increase exponentially the U of A's ability to recruit major new talent and attract external funding that will propel this institution to a whole new level."

"But, most importantly, this gift has the power to transform lives around the world. With this major endowment, research that has the potential to save and improve the lives of people vulnerable to the devastating effects of viral diseases will have financial support in perpetuity."

The announcement marks the beginning of a new partnership between the university, the government

"This gift has the power to transform lives around the world."

Indira Samarasekera

of Alberta and the Li Ka Shing (Canada) Foundation, dedicated to improving the human condition through the advancement of education, health care, arts and culture, and community projects around the world.

"The University of Alberta and Mr. Li, the founder of the Li Ka Shing Foundation, hold a similar philosophy of public service," said Samarasekera, talking about her meeting with Li.

"I was inspired by his vision, and touched by his humanity and dedication to make a difference in the quality of life of people everywhere, in particular Mr. Li's dedication to education and health care for those

with the least access."

Frank Sixt, president of the Li Ka Shing (Canada) Foundation, said the partnership is one that reflects the purpose of the foundation, and of its founder, Li Ka-shing.

"One need only think about the threat to human well-being posed by virus pandemics—SARS, avian flu, swine flu, the next unidentified killer—to see how today's gift has the potential to be transformational in the lives of literally millions of individuals," he said. "This opportunity to partner with the U of A is, we think, an opportunity that can accelerate the translation of research into care and can ensure better prevention and deliver faster cures, not just in Alberta, not just in Canada, not even just in China, but maybe on a global scale."

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Million-dollar smiles



Solina Chau, the director of the Li Ka Shing Foundation, snaps a photo of herself with Lorne Tyrrell, the inaugural director of the Li Ka Shing Institute of Virology, to send back to Hong Kong.

Historic gift places U of A virology research on a whole new level

Ileiren Poon

"This gift has the power to transform lives around the world."

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folio

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Satellite takes a space-eye view of Arctic ice

Brian Murphy

More than 700 kilometres above Earth, a recently launched satellite is being readied to provide University of Alberta researchers with a new set of eyes for monitoring ice thickness across the Arctic.

Martin Sharp and Christian Haas, researchers in the U of A's Department of Earth and Atmospheric Sciences, will play lead roles making sure CryoSat 2, launched earlier this month by the European Space Agency, provides accurate readings.

Haas will compare CryoSat's calculations of sea-ice volume with data he's collected with electronic monitoring equipment over the years on numerous low-altitude flights. Last spring, Haas zigzagged his way across the Arctic, just 60 metres above the sea ice, covering the vast area between Greenland and Alaska. Haas will update his own research next month with a series of helicopter flights over the ice.

Haas says Cryosat 2's readings will be validated over the next six months and expects that its results will go online this fall.

"The satellite will provide updated Arctic-wide data once every month," said Haas. "The satellite will complement the research that I and others will continue with, and the result will be a total picture of seasonal variations of the ice."

Haas explains that this orbiting technology has a distinct advantage over Arctic research done on foot or



Martin Sharp and Christian Haas will play lead roles making sure CryoSat 2, launched by the European Space Agency, provides accurate readings of Arctic ice levels.

from low flying aircraft because it's weather proof.

"CryoSat uses radar telemetry which can see through any kind of weather and cloud cover," said Haas.

CryoSat 2 isn't the first satellite to measure ice thickness at both poles. Last fall, an American satellite called ICESAT suddenly stopped working

after nearly six years in orbit.

In 2005, the European Space Agency launched CryoSat 1, but that mission ended badly with a launch failure a couple of minutes after blast off. The life expectancy of CryoSat 2 is three to five years.

While Haas focuses his work on sea ice, Sharp will work to validate the

satellite's reading of land-based ice sheets. Sharp says that while previous radar telemetry surveys of Arctic land masses focused on large land forms like Greenland, CryoSat 2 will include data from smaller ice formations covering islands in the Canadian Arctic.

“We have evidence that in the last decade the ice-mass loss in the Canadian Arctic has gone up from 15 cubic kilometres per year to close to a 100.”

Martin Sharp

"We have evidence that in the last decade the ice-mass loss in the Canadian Arctic has gone up from 15 cubic kilometres a year to close to 100," said Sharp. "As far as we can tell, most of this is from surface melt, but we couldn't tell that from previous satellite surveys."

The new satellite will provide the detailed measurements of ice sheets covering rough terrain, which Sharp says is especially important along the steep edges of ice sheets where the highest rate of melting occurs.

To validate the satellite's coverage of ice sheets on land, members of Sharp's team will stand on Devon Island, located in Baffin Bay, Nunavut, and synchronize their watches with a survey aircraft fly-by and the CryoSat 2 satellite out on the edge of space. Readings from all three sources will be compared. "We're going to try and get as close to real time as we can with all the measurements."

Research shows skin-cancer rates in Alberta levelling off

Quinn Phillips

It appears people are listening to doctors' orders to protect their skin from the sun.

In the largest Canadian study of non-melanoma skin cancer, Andrei Metelitsa, Gordon Jung and their research group have found skin cancer rates in Alberta are going down in men and have levelled off for women.

"It's amazing to see that we're going against traditional thought, which was that [skin cancer] was going to continue to escalate," said Jung, a dermatology resident in the Faculty of Medicine & Dentistry at the University of Alberta.

Metelitsa and Jung analyzed data collected over a 20-year period from nearly 100,000 patients diagnosed with the two most common cancers in the world: basal cell carcinomas

and squamous cell carcinomas, which are considered non-melanoma skin cancers. They aren't deadly but can often be disfiguring.

After a rapid spike in the late 1980s and early '90s, the number of cases have remained stable since 2000. The scientists note it's interesting that the number of more progressed skin cancers dropped in the late 1990s, which means doctors are catching problem moles and lesions sooner.

The pair has a few theories on why the trend is changing, the first being that Alberta has had a very good skin-cancer awareness program since the 1980s. "For people to change their behaviour, it can take approximately 20 years," said Metelitsa. "So perhaps the fact that we're finally seeing the change in those trends since the year 2000 is a partial reflection of that."

The research group wants the trend to continue downward. Because non-melanoma skin cancers are caused by cumulative sun exposure over a lifetime, and the diagnosis is most common in those over 40 years of age, they suggest regular skin examinations for people in that age group.

"If it's not possible to do it every year, for sure we feel that at some point every individual should have at least one full skin examination and perhaps that should be at 40," said Metelitsa.

But just because the numbers are going down, it doesn't mean it's time to go easy on the sunscreen, the group warns.

"As dermatologists we're always a little concerned to talk about this because the last thing we want is for people to stop caring," said Metelitsa.

Historic gift

continued from page 1
Lorne Tyrrell, the inaugural director of the Li Ka Shing Institute of Virology, was visibly emotional as he thanked the foundation for the support and talked about his research.

"Since I began practicing in infectious diseases over 30 years ago, there has been a steady stream of new infectious diseases—an average of one per year—diseases you will easily recognize. These include HIV/AIDS, hepatitis C, SARS, West Nile virus, new strains of herpes viruses and new strains of influenza. A number

of these viruses have been proven to cause cancer, such as the papilloma virus in cervical cancer and hepatitis viruses that cause liver cancer," he said.

The virology institute will be located inside the Katz Group Centre for Pharmacy and Health Research on the corner of 87 Ave. and 114 St.

"In addition, the eastern anchor of the U of A health sciences precinct, the building in which the Alberta Diabetes Institute is located, has been named the 'Li Ka Shing Centre

for Health Research Innovation,'" Samarasekera announced. "It is hard to find words to express our thanks for this truly transformative gift. This gift represents the largest cash donation in the history of our university. What a wonderful milestone," she said.

"With this support and partnership, virology and immunology research teams at the U of A now have the capacity to take a major step forward and lead a paradigm shift in the fight against viral diseases around the world."

Greenest employer

continued from page 1

Judges of the greenest employers also pointed out that the university's recycling program, established in 1975, now includes an in-house recycling transfer centre to compact recyclables, and even a "green demolition" program to encourage salvage and re-use of building materials as part of on-campus renovations and demolitions.

Other highlights include the university adopting sustainable cleaning practices, including the use of environmentally friendly cleaning chemicals that meet "Green Seal" and "Environmental Choice" standards; composting organic kitchen waste in university dining facilities, as well as leaves and garden waste for later use in landscaping projects across the campus; and creating a multi-year, \$25-million energy management program that includes upgraded energy-efficient lighting, with completed projects saving more than \$1.7 million in utility costs and reducing associated carbon dioxide emissions by 20,000 tonnes per year.

Other U of A environment success recognized by the award committee included designing and redesigning a number of new campus buildings to meet Leadership in Energy and Environmental Design standards, as well as the achievement of the prestigious LEED gold certification for the Triffo Hall building renovation.

Researchers discover possible treatment for intestinal disease

Brian Murphy

A University of Alberta researcher is part of an international team that has discovered a possible new treatment for an intestinal disease that can be fatal for young children and the elderly.

Chemistry researcher John Vederas, along with colleagues in Ireland, has discovered a strain of common soil bacteria that yields a chemical compound that directly targets *Clostridium difficile*, a sometimes deadly bacteria that causes severe abdominal pain and diarrhea.

Outbreaks of the disease can be deadly in long-term care facilities. In Quebec, health officials determined outbreaks of *Clostridium*



John Vederas

were the direct cause of death for more than 1,000 people between 2003 and 2004.

"The compound we found, called thuricin CD, is a breakthrough because it only takes out the harmful intestinal bacteria *Clostridium difficile*," said Vederas. "It does no harm to most other bacteria in the gut, which people require for a balanced state of health."

Vederas says that when a broad-spectrum antibiotic like penicillin or vancomycin is used to treat intestinal disease, the majority of bacteria in the gut may be eliminated, but *Clostridium difficile* bacteria can make a quick comeback and become deadly. The peptide compound thuricin CD was identified by researchers

during routine screening of soil microorganisms for potential use as bacteria killers.

Vederas' Irish collaborators derived the compounds from the ever-present soil bacteria called *Bacillus thuringiensis*.

Gardeners are familiar another strain of the *Bacillus* species because of its widespread use as a natural chemical for insect control.

Vederas is co-author of a paper on thuricin CD published this month in *Proceedings of the National Academy of Science USA*. Researchers have just begun testing the compound in animals.

"It's a good beginning," said Vederas. "We have a unique chemical compound that will hopefully proceed to human trials and become recognized as the treatment that stops *Clostridium difficile* in its tracks." ■

Brightening the future of solar panels

Brian Murphy

A University of Alberta researcher has won an innovation prize to look into fabricating nano-structures that will improve the energy-yielding power of solar panels. Karthik Shankar, an assistant professor of electrical and computer engineering, wants to advance the efficiency of semiconductors, used to convert sunlight to electricity, by converting them to nano-structures and combining them with metallic nanoparticles.

"A lot of today's solar cells are limited because they don't harvest the wide spectrum of light from the sun,"



Karthik Shankar

said Shankar. "By combining metallic nanoparticles with semi-conductor nano-structures you get a solar cell that absorbs light more strongly and absorbs a wider array of sunlight, from ultra violet light to visible all the way to infrared."

Petro-Canada awarded Shankar its Young Innovator Award and a \$20,000 research grant to try and make his new technology proposal a reality.

Shankar says if this technology works, it will change the cost of manufacturing solar panels. "Building solar panels with mainstream semiconductors requires a clean room and people in laboratory bunny suits," he said. "It's very expensive. My proposal is low cost. You

won't need a clean room; hopefully you can make these new solar panels in a garage."

Not only did Petro-Canada like Shankar's idea for improving solar cell efficiency; they're also interested in spinoffs of the technology.

One of the offshoots of his proposed technology could be used for environmental clean ups, says Shankar. "Sunlight that hits nano-structured semiconductor particles added to questionable drinking water will break down organic pollutants."

Shankar says it could be five to 10 years before his technology is commercially viable. In the meantime, his lab at the U of A is ready to go.

"I have a graduate student lined up to begin work, so when the money arrives in the bank the research will begin." ■

Researchers supported by \$2.5 million in CFI grants

Folio Staff

On April 23, The Canada Foundation for Innovation announced that it has awarded more than \$2.5 million to the University of Alberta to support 11 research projects that range from studying the impact of prion diseases to potential new therapies for heart failure.

The foundation announced a total of \$27,871,219 in new funds to support 118 projects at 32 institutions across Canada, of which \$21,439,399 was awarded under the Leaders Opportunity Fund.

Lorne Babiuk, vice-president (research) at the U of A, says this fund will provide infrastructure support to U of A researchers so it can attract and retain the very best of today and to-

morrow's leading researchers and innovators at a time of intense international competition for knowledge workers.

"The Leaders Opportunity Fund provides crucial support that gives our researchers the tools to continue their leading-edge research and allows our university to attract very high quality students and post-doctoral fellows with state-of-the-art equipment," said Babiuk. ■

Are You a Winner?

Congratulations to Frank Haley, whose name was drawn as part of folio's April 23 "Are You a Winner?" contest, after he correctly identified the photo in question as the sculpture built into the wall above the main entrance into University Hall. For his effort, Haley has won a vaunted Butterdome butterdish, circa 2008.

Up for grabs this week is a

highly prized U of A pageholder. To win, simply identify where on campus the object of the picture is located. Email your correct answer to folio@exr.alberta.ca by noon on Friday, May 14, and you will be entered into the draw. ■



New tool for personalized cancer therapy

Gloria Jensen

Forty years of avant-garde cancer research by Carol Cass, oncology professor at the U of A, has culminated in this new tool for personalized cancer therapy.

Cass and her colleagues, James Young and Steven Baldwin, were among the first to describe and characterize the nucleoside transporter protein hENT1. This fundamental discovery uncovered the mechanisms of transport of nucleosides across biological membranes, which is central to cancer research. Nucleoside-based drugs are only able to cross cell membranes by entering through the specialized transporter proteins to directly attack cancer cells. The key to the license agreement with Clavis Pharma was that the hENT1 diagnostic can be used to select the most suitable drug for individual patients.

"When I first started working at the University of Alberta in 1970, I had no idea that 40 years later I would be considered a 'founder' in this field of cancer research," said Cass, who is also the director of the Cross Cancer Institute and acting scientific director of research in Alberta Health Services – Cancer Care.

The cell line developed by Cass and her colleagues produces an antibody that is able to identify and react with the hENT1 protein. This identification process was used by John Mackey, an oncology professor at the U of A and clinician at the Cross Cancer Institute, to prove that the more hENT1 protein a pancreatic cancer patient had, the better they responded to the drug Gemcitabine, used to treat pancreatic cancer—a cancer with a 94 per cent mortality rate after five years.

"TEC Edmonton acted on behalf of Dr. Cass and her colleagues to take care of the business aspects of the licensing deal, facilitating Clavis' evaluation and subsequent exclusive license of the technology," said Chris Lumb, CEO of TEC Edmonton.

As the U of A's technology trans-

Working in the Cross Cancer Institute, where discovery and clinician scientists go hand in hand, helped us translate our research as we could more easily see its relevance to cancer."

Carol Cass

fer agent, TEC Edmonton's mandate is to move discoveries into the marketplace. Clavis will collaborate with the U of A to develop hENT1 companion diagnostic tests for its cancer product candidates. These tests will help doctors determine the best course of therapy for patients.

"We appreciate and are deeply impressed by the great work performed by Dr. Cass during her scientific life with thorough and persistent work aiming at revealing basic and new knowledge about the function of all the nucleoside transporters, combined with extensive collaboration with others scientists," said Marit Liland Sandvold, Clavis' vice-president, preclinical research and development. Cass believes that location played a significant role in her recent commercial success. When she moved her lab into the Cross Cancer Institute, she began to be influenced by the clinicians that she rubbed shoulders with.

"Working in the Cross Cancer Institute, where discovery and clinician scientists go hand in hand, helped to translate our research as we could more easily see its relevance to cancer," Cass said.

Over the next few months, folio will examine one of the cornerstones of the university's Dare to Discover vision, connecting communities, by examining the role TEC Edmonton plays in advancing mutual goals by fostering partnerships with business and industry. ■



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The University of Alberta Teaching Awards reception was held May 4 in the Timms Centre for the Arts.

VP's work on whooping-cough immunization garners honour

Michael Brown

The spare moments for a university vice-president to pursue research

interests are few and far between. Nonetheless, Lorne Babiuk, vice-president (research) at the U of A, has made the most of his time available, and for now his research was featured on the *Canadians for Health Research* website as April's researcher of the month.

The honour stems from the virologist's work in improving vaccine-delivery methods in the developing world. In 2005, Babiuk—who was then the director of the Vaccine and Infectious Disease Organization at the University of Saskatchewan—was one of only three Canadian researchers to qualify for a Bill and Melinda Gates Foundation challenge grant, a competition launched by the billionaire philanthropists that seeks innovative proposals to tackle health

"Sometimes sleep can be overrated."

Lorne Babiuk

problems killing large numbers of people in the developing world.

Babiuk and his team received US\$5.6 million over five years to develop a single-dose vaccine for whooping cough that can be given nasally. As it stands now, the vaccine for whooping cough is delivered over the course of five needle injections.

"Clearly you cannot give that in the developing world," said Babiuk of the scheduling challenges presented in trying to deliver multiple injections. "In the third world, needles are expensive and we don't want people reusing needles."

With his research into whooping cough winding down, Babiuk says he is fortunate to have met the challenge.

"We've demonstrated this vaccine works in animal model systems," said

Babiuk. "We are still a few years away from being able to try it on humans."

Babiuk says balancing the demanding roles of researcher with his duties as vice-president (research)—the latter position he assumed midway through 2007—has been made easier thanks to a long line of committed project managers, grad students, colleagues and collaborators, not to mention a little "juggling," he says.

"Sometimes sleep can be overrated."

Provost featured in business magazine

Six "top Alberta leaders" are profiled and "share their insights into the principles and best practices of leadership" in the May issue of *Alberta Venture* magazine. Among the leaders featured in the article is University of Alberta Provost Carl Amrhein.

On managing an institution as complicated as the U of A, Amrhein told the magazine, "I listen very carefully and I consult extensively. But then you have to decide. That's not always easy. You hope to get most of [those decisions] right. You get some of them wrong, and when you do the most important thing is to admit it, be transparent, honest and say, 'Let's try again.'

For the full interview with Amrhein, see "Leading by Example" at albertaventure.com.

the open door Celebrating the U of A's role in the community

Debra Pozega Osburn
Interim vice-president, external relations

Teaching. Discovering. Learning. Giving back.

Day after day, the work of the University of Alberta plays a part in the lives of people in the Edmonton region, throughout the province of Alberta and far beyond—in decisions reached, in knowledge shared, and at its best, in lives changed for the better.

In fact, the university is an active part of the many communities it touches. Sometimes, we forget that these links with our communities represent a symbiotic relationship; as our commitment to excellence enriches the lives of others, so too does the commitment of those communities to the university enrich ours.

On May 6, the university acknowledged and celebrated the commitment of government, corporate, alumni, donor and community stakeholders who help us in our drive to achieve the vision that our founders set for us. We brought nearly 300 of those stakeholders together for an event named in honour of our founding president, Henry Marshall Tory. We reminded them that only with their help are we able to maintain our commitment to educating generations of students to reach their full potential, to undertake research that advances society, and to reach into communities as productive citizens. And we reported back to them on our successes: in research discoveries, in fundraising and in student achievements.

The evening pulled together a number of separate events that had

previously allowed us to report our accomplishments to our various communities and to thank them for their support (and thus saved the institution money as well). Now, more than ever, it is important to communicate the university's relevance. Through the stories of the faculty members and students who discussed their work throughout the evening, we demonstrated not only our impact on the communities, but also the impact of community involvement on our ability to achieve our academic mission.

In her remarks to the attendees, President Indira Samarasekera acknowledged Tory's heartfelt charge that the U of A was founded on the premise that knowledge would "not be for scholars alone"; instead, as Tory said, that "the uplifting of the whole people shall be its final goal."

Said Samarasekera: "Henry Marshall Tory was a man of vision and hope. He was also a leader who understood very clearly that this university would rise on the strength of its connection to the community it serves. A university that seeks to uplift the whole community will be a university that is uplifted by that very same community."

"Together, we form a virtuous circle—a complete and whole circle of people who work together to advance learning and discovery, which changes life for the better for people at home and around the world."

The Henry Marshall Tory Dinner was just one aspect of one day of a typical week at a busy university, but it was a wonderful reminder of the connections that keep us all moving forward.

surf city

Science in Seconds was founded on a simple principle: know everything. The brainchild of three University of Alberta graduates—Rheanna Sand, Torah Kachur and Brit Trogen—the website aims to cram as much scientific information into your skull as possible, from black holes to white blood cells.

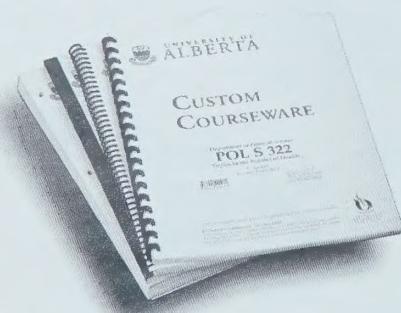
"We scope out the coolest science news and give you a concentrated dose in two minutes or less. Think of us as the gateway drug to science; you'll be hooked after just one hit," reads the site's tongue-in-cheek introduction. "Science is more than textbooks and lab coats. It's alive and mutable; the consummate changeling. Science is an integral part of our society—intertwined with our culture, our world and our future. It can be divisive, maddening or exciting, but no matter what, it's always worth learning."

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Making room for mushrooms

Bev Betkowski

With a reputation as being poisonous at worst, or just plain icky at best, the humble mushroom should get some serious credit as a health food, say University of Alberta nutrition students.

"We were surprised to discover that fresh mushrooms provide much more of a health benefit than we originally expected," said Kaila Hauck, one of four science and nutrition undergraduate students in the Department of Agricultural, Food and Nutritional Science who reviewed existing research literature on the topic for a year-end capstone course project.

After combing through more than 60 scientific papers detailing the compounds of edible mushrooms, Hauck and her classmates were amazed at the array of benefits the fungi have for fending off cancer, fighting viruses and reducing inflammation in the body.

"I had no idea mushrooms had any

health benefit at all, let alone several," added Hauck's classmate, Erika Janisch.

Fungi weren't at the top of Janisch's menu when she began working on the project, but she changed her mind as she got deeper into the work.

"Throughout our research we kept finding more facts on mushrooms that made me think I should be eating more of these. I never liked the taste or the texture, but when you cook them, they absorb many flavours of the foods they are cooked with. This helped me work them into my diet."

"If it weren't for this project, I wouldn't know about the health benefits of mushrooms and I would continue to look at them with disgust."

Mushrooms served as a food source for prehistoric humans. Throughout history, they've been valued by various cultures for their medicinal qualities. There are between 700 and 2,000 known species.

"One of the most significant

health benefits is the potential role played in inhibiting different types of cancer tumours," said Hauck. "The World Cancer Report is predicting 15 million new cases of cancer by the year 2020, and while this is alarming, there is evidence that proper nutrition can prevent as many as one third of cancers worldwide."

The beta-glucans found in the mushroom can play a role in cancer prevention, as can other helpful compounds, such as selenium, Hauck said.

"In fact, mushrooms provide more selenium than any other fruit or vegetable," which is a compound believed to decrease the incidence of some human cancers. Selenium is also being used along with chemotherapy in clinical trials, resulting in enhanced therapeutic effects, Hauck added.

In addition, the studies show that mushrooms contain antioxidants, which help reduce the risk of heart disease and other chronic illnesses.

Though mushrooms were considered to be an oddball research project at first, Hauck and Janisch are pleased their investigation provided a heaping helping of experience, along with a newfound respect for mushroom burgers.

"It fascinated me that with a bit of research you can learn so much more than studying for an exam," said Janisch. "Research sticks with you and [a capstone project] is a great way to pull everything together."

"Projects like this are a good way for students to learn about issues pertinent to the food industry, and to get a first taste of research," added Lingyun Chen, an associate professor of plant protein and chemistry in the Department of Agricultural, Food and Nutritional Science who supervised the students.

"Because it's a fungus, people may be squeamish about eating mushrooms, but they are definitely a superstar in the food world," Hauck said.



Erika Janisch and her team have rediscovered the health benefits of mushrooms.

Physicians report abuse in workplace

Noreen Remtulla

Donna Manca, a family physician and researcher with the Faculty of Medicine & Dentistry, admits her guard was down when she was harassed by a patient.

"I wanted to help her," recalls Manca.

After being prescribed a one-week supply of anti-depressants, the patient believed Manca had caused her brain to shrink.

As a physician, Manca carried a pager and was always on call. The patient started paging constantly and threatening Manca's life. The calls came to her office and even to her home. The phone calls escalated and Manca would sometimes receive three to four threatening phone calls a day.

"I was shaken," said Manca. "I never expected to be stalked by a patient."

This was the catalyst of a long nightmare for Manca, as well as the spark that initiated her to research physician abuse in the workplace.

Manca filed reports with the College of Physicians and Surgeons and with the police. The experience changed Manca's life. She changed

her answering machine so the recording was no longer in her own voice, bought a dog and even took up martial arts to protect herself and her family.

Shortly thereafter, Manca became aware of two other female physicians who were also stalked by previous patients.

"I realized there is a strong prevalence of physicians being abused in their workplace," said Manca. "I thought, 'could this be happening to male physicians too?'"

Manca's experience prompted her research and she co-wrote an article called, "Prevalence of abuse encounters in the workplace of family physicians," with her peers across Canada.

After randomly selecting 3,802 family physicians in Canada to survey, 770 surveys were returned completed. A shocking 98 per cent of doctors said they experienced at least one incident of "minor" abuse.

The study categorized three stages of abuse: minor, major and severe. Minor abuse included disrespectful behavior, bullying, verbal anger and threats and humiliation. Major incidents were acts of personal aggression, destructive behavior and sexual harassment. Severe encounters encompassed various forms of assault

98 per cent of doctors said they experience at least one incident of "minor" abuse.

and stalking.

Almost 40 per cent of physicians reported at least one incident of severe abuse, including about 13 per cent who had been stalked at some point in their careers.

Manca noted that both male and female physicians are just as likely to be subjected to some form of abuse.

Moving forward, Manca encourages making the workplace safer, for both patients and physicians.

"Consider the way clinic rooms are arranged," Manca said. "We can improve them by setting them up differently to ensure physicians cannot be barred in the room."

Manca wants to improve the working environment for both parties. "We can create healthy relationships by protecting boundaries between the physician and patient," she said.

staff spotlight

Singing the praises of the unsung



Lester Lim (left) and David Polvere work on a camera system.

Laurie Wang & Michael Brown

When you're on the wrong end of a failed computer, the IT person who arrives on the scene comes as close to a knight in shining armour as we're going to find in the modern workplace.

And if that failed computer resides within the Faculty of Rehabilitation Medicine, dismounting his proverbial trusty steed to save the day is, even by the high standards of the U of A's IT community, a true unsung hero.

"It boils down to customer service," said Lester Lim, rehab medicine's systems analyst. "We try to make the IT work for them, so they can continue to do whatever they need to do to get through the day."

Lim, who has been with the Rehabilitation Medicine Technology Group since 2004, was recently named the Information Technology Unsung Hero Award winner by the U of A Information Technology Awards Committee.

Nominated by the entire faculty for the award, it is clear from the entry that Lim's efforts do not go unnoticed. Lim has been seen giving hands-on demonstrations and fixing problems even before he has had the chance to take his coat off, and, on occasion, before he had dropped off his son at the day care centre nearby.

"There is no one else I'd rather have

on the frontlines of technical support in the Faculty of Rehabilitation Medicine," said David Polvere, IT manager. "Lester manages an endless task list along with frequent, urgent and last-minute help requests—and he does this gracefully and without question."

Staff say Lim takes the time to learn the names of people's computers. Whether they're regular names like Dell and Apple, or Star Wars-themed names like Darth Vader and Yoda, he will thoughtfully refer to staff's computers by name. His sense of humour and calm demeanor make people warm up to him quickly.

Martin Ferguson-Pell, dean of rehab medicine, says Lim also recognizes that IT extends beyond the walls of Corbett Hall.

"Some faculty members work from home, in another country or somewhere else on campus," said Ferguson-Pell. "Lester provides the best service no matter where you are."

Lim says he sees it as a privilege to work in the faculty, which is why staff often see him chipping in where he can, even when it's not an IT issue.

"From the very first day, everyone was welcoming," said Lim. "I have a real sense of belonging here."

"When I walk through the halls, the people will say thank you. They're always showing their appreciation, and that's enough reward for me."

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Headaches & TMJ syndrome

Dysmenorrhea/Menopause syndrome

Children's ADHD symptoms & more!

Patient Testimonials:

1) "Near half our staffs have been in your clinic"-- A staff of U of A Medicine department.

2) "You helped me lost 35 lbs. & my blood pressure reduced from 180/110 to 125/85. My 20 yrs neck & shoulder pain was gone."—A senior staff of U of A.

3) "I had sever sciatic pain from spinal stenosis, disc bulges & spinal cyst which are not operable. In 2 months, Dr. He has liberated me from most of the pain!"—A senior staff of U of A

Making a home for virology at the U of A

Michael Brown

In 1990, University of Alberta virologist Lorne Tyrrell rushed to Calgary for a meeting with the son of Chinese philanthropist Li Ka-shing, in hopes of sparking some interest in a virology institute at the U of A.

At the time, Tyrrell was beginning to make a name for himself as an expert on some of the world's most common viral infections, including Hepatitis B, a virus that attacks the liver, has between 350 and 450 million carriers and is endemic in China.

"[Hepatitis B] is the most common disease in China, and Li Ka-shing's son was in Canada on business, so I thought it was a great opportunity to connect with him to see if they would help us do some work," said Tyrrell.

That chance meeting never happened. A missed opportunity? Maybe to some; Tyrrell took a raincheck instead.

"I guess you could say the Li Ka Shing Institute of Virology was 20 years in the making, but I don't think [Li Ka-shing] knew that," said Tyrrell, who, on April 23, was named the first director of the institute.

The institute was made possible by a \$25-million gift from the Li Ka Shing (Canada) Foundation—the single largest private donation ever made to the U of A—and \$52.2 million in new related funding from the provincial government. Another \$3 million is earmarked for a medicine-student exchange program between the U of A and Shantou University Medical College, founded by Li.

Beyond this relationship two decades in the making, the creation of the institute began the day Tyrrell decided to attend the U of A.

Originally from a farm near the Alberta village of Duffield, Tyrrell came to the U of A in 1961 as an undergraduate student in the Faculty

of Science. He graduated with a degree in chemistry in 1964, winning the gold medal in science for having the highest grade point average. He finished his doctorate of medicine and was awarded a gold medal in pediatrics in 1968.

In his second year of medicine, Tyrrell received a Life Insurance of North America Studentship, which provided him the opportunity to complete a combined MD and PhD program. Following an internship at the U of A Hospital, Tyrrell entered Queen's University and completed his PhD in pharmacology in 1972. In 1975, he returned to Alberta to complete training in internal medicine to qualify as a fellow of the Royal College of Physicians and Surgeons.

He specialized in infectious diseases and, in 1976, was awarded the Medical Research Council of Canada Centennial Fellowship, which has played a pivotal role in Tyrrell's medical career. The budding researcher did his post-doctoral training in virology at the Karolinska Institute in Stockholm, Sweden.

"I enjoyed studying infectious diseases and particularly enjoyed the challenge of studying viral infections," said Tyrrell. "Intercellular parasites, at that time, had such an ability to evade any antiviral therapy. There were no specific targets to treat, but we did believe there were some other ways that we could treat them."

Upon returning from Stockholm, Tyrrell began work initially on the measles virus and added the herpes virus and antiviral agents to his research. By the mid-80's, the world began to see some breakthroughs in the area of virology, in particular the replication of the Hepatitis B virus, which causes an infection in the liver.

"I was very intrigued by the mechanism of Hepatitis B replication, so I started to work with an outstanding nucleotide chemist at the

U of A, Morris Robins," said Tyrrell. "I remember meeting Morris at the Faculty Club, where I mentioned the idea of developing compounds to inhibit Hepatitis B, and that was the beginning of a long collaboration between the two of us."

That collaboration would result in lamivudine, the world's No. 1 selling antiviral for treatment of Hepatitis B.

Tyrrell, who had already begun the migration to administration, was named dean of the Faculty of Medicine & Dentistry in 1994, a position he would hold until 2004. But running the faculty didn't impede Tyrrell's research. Along with Norm Knetman, a transplant surgeon at the U of A, and graduate student David Mercer, the trio was able to develop the animal model for Tyrrell's ongoing Hepatitis C research. He also started the Glaxo Heritage Institute in 1995, which was transformed into the Centre of Excellence for Viral Hepatitis in 2002.

On Nov. 1, 2008, Tyrrell finally got his meeting. He and U of A President Indira Samarasekera met with Li Ka-shing during a special convocation in Hong Kong as part of the U of A's Centenary celebration. "From there, it was a natural to create an institute of virology."

In late 2009, Tyrrell's dream of a single banner to represent virology and immunology studies at the U of A took the next crucial step when David Evans, professor and chair in the Department of Medical Microbiology and Immunology, combined their funding received through the Canada Foundation for Innovation.

"It took a lot of years, but none of this would have been possible without the dedication of the Li Ka Shing Foundation and hard work by a lot of people here at the U of A," said Tyrrell, adding that Evans, Samarasekera, Lorne Babiuk—vice-president (research) and virology researcher—and John Chiu, a Edmonton family physician with connections to China, really made the reality of the institute's success a group success.

"I always thought there was a possibility that, with the strength in virology we have at the University of Alberta, this institute would be possible." ■



Lorne Tyrrell, the first director of the Li Ka Shing Institute of Virology, gives a guided tour to Alberta Premier Ed Stelmach.

The life and times of Li Ka-shing

"To be able to contribute to society and to help those in need to build a better life, that is the ultimate meaning in life. I would gladly consider this to be my life's work."

— Li Ka-shing

After a childhood of hardship and strife, if there is a single word to describe the life of Li Ka-shing, it's perseverance.

After his birth in 1928 in Chiu Chow, a coastal city in the southeastern part of China, Li and his family fled to Hong Kong when he was 12. Shortly thereafter, his father suffered from tuberculosis and died.

Shouldering the responsibility of the family, Li left school before age 15 and found a job in a plastics trading company. By 1950, his hard work, prudence and his pursuit of excellence enabled him to start his own company, Cheung Kong Industries. From manufacturing plastics, Li led and developed his company into a leading real-estate investment company in Hong Kong that was listed on the Hong Kong Stock Exchange in 1972.

Cheung Kong Industries continued to expand by acquiring Hutchison Whampoa in 1979 and Hongkong



Electric Holdings Limited in 1985.

In 1980, Li set up a charitable foundation with a mission to enhance the impact of philanthropy through two strategic objectives: to nurture a culture of giving and to foster creativity, constructive engagement and sustainability through supporting capacity empowerment focused projects. To date, the Li Ka Shing Foundation and other private charitable foundations established by Li have supported numerous charitable activities with grants, sponsorships and commitments of over HK\$11.3 billion (US\$1.45 billion). Li also founded Shantou University in 1981 in Shantou, China, to engineer reforms in China's education system. Shantou University has nine colleges, including a medical college with five affiliated hospitals. With students enrolling from all parts of China, the university has 7,500 undergraduate and 1,500 graduate students. ■

There's strength in numbers: Virology research at the U of A

Folio Staff

The work of internationally recognized virologists in the Faculty of Medicine & Dentistry has propelled the University of Alberta to the front lines of a biological war as old as life on Earth. They hold numerous grants, have published extensively and are cited often by their peers. Here are some of them:

- Lorne Babiuk, U of A vice-president (research) is a virologist and internationally known for his advanced work on enhancing the effectiveness of vaccines.
- David Evans and Michele Barry are focusing on poxviruses. Barry is a recognized leader in molecular virology and host/virus interactions. Evans is an expert in how similar strains of virus swap bits of their genetic material during virus growth and recombine it to create new viruses.
- Mary Hitt is studying the use of adenoviruses, which normally cause

harmless respiratory infection, as a weapon against cancer cells.

- Andy Mason is working with Gane Wong and doing important discovery work on retroviruses, which are especially problematic since they leave behind part of their genetic material in the chromosomes of infected people.
- James Smiley studies virus-host interactions and is a recognized expert on herpes viruses. These include herpes, chickenpox, shingles and Epstein-Barr virus, which causes mononucleosis and some cancers.
- Viruses cause serious problems for post-transplant patients, who are especially vulnerable to influenza and flare ups of latent herpes viruses. Atul Humar and Deepali Kumar are conducting basic, translational and clinical research in this area.
- Tom Hobman is an authority on host-virus interactions in cells infected with rubella and West Nile viruses. He wrote the chapter on rubella in a widely used textbook on viruses.
- Philip Halloran is director of the Alberta Transplant Applied Genom-
- ics Centre and has worked extensively on the regulation of gene expression in transplant organs undergoing rejection, the effect of tissue injury in transplant organs and age effects.
- Michael James is a pioneer in the field of protein crystallography. James established the first Canadian laboratory devoted to that pursuit at the U of A in 1968.
- Katharine Magor says ducks are the primary host of influenza virus. Magor's research looks at understanding how the duck successfully clears the virus, which may identify new strategies to prime our own immune defences.
- Deborah Burshtyn is investigating the collaboration between various "killer cell Ig-like receptors" or KIRs, and a related receptor LIR1.
- Edan Foley is researching immune signalling, RNA interference and genomics.
- Philip Halloran is director of the Alberta Transplant Applied Genom-
- ics Centre and has worked extensively on the regulation of gene expression in transplant organs undergoing rejection, the effect of tissue injury in transplant organs and age effects.
- Linda Rehak-Krantz is directed at determining how DNA polymerases copy DNA with high fidelity.
- Joan Robinson is a professor of pediatrics at the U of A and does research in pediatric infectious diseases and respiratory viruses.
- Luis Schang is interested in the roles that cellular proteins and lipids play in infection, replication and pathogenesis of viruses and prions.
- Mavanur Suresh works to understand bispecific and bifunctional antibodies for novel diagnostic and therapeutic applications in cancer and infectious diseases.
- Xiaoli Lilly Pang is pursuing the causes of viral gastroenteritis. ■

Proposed health and wellness centre lauded as another university jewel

Geoff McMaster

When it opens in 2013, the U of A's new Students' Union Physical Activity and Wellness Centre promises to be not only an iconic gateway to the campus but also the envy of every university in Canada.

Covering a total of 180,000 square feet at the corner of 87 Ave. and 114 St., the three-storey complex will house a 20,000-square-foot fitness centre, space for student recreation and study, one of the finest climbing walls in the country and a new Steadward Centre for people with physical disabilities four times larger than the current incarnation.

The \$50–60 million centre, to be connected to the Universiade Pavilion, also known as the Butterdome, the east wing of the Van Vliet Centre and eventually by tunnel to the Edmonton Clinic, will even include places for prayer and meditation and a teaching kitchen where students can learn about cooking and nutrition.

"It will be a showcase for the university," says John Barry, coordinator, capital development, for the physical education and recreation faculty. "It's more than just a fitness centre; it's about holistic health and wellness, and it will really put us on the map."

"Right now the Go Centre on South Campus is under construction, which will give us the largest single gymnasium space facility in the country—the fourth largest in North America—and will be about four times the size of the Butterdome. So it's really an exciting move forward to get both of those buildings coming on stream." He adds that the PAW Centre will be

built according to LEED environmental standards.

Last February the U of A student body agreed to a non-instructional fee to support the centre, amounting to \$29 per fall and winter terms, and \$14.50 for spring and summer sessions. However, the fee will not be levied until the centre is open and operational, says Barry.

Barry said the impetus for the PAW Centre came about 20 years ago when the university realized one sheet of ice at the Clare Drake Arena wasn't sufficient for a community the U of A's size and began pushing for a new arena. It also became clear, he says, the moment the west gym in the Van Vliet Centre was converted into a fitness centre 12 years ago, that it was already too small.

"But it just seemed like every time something happened, we didn't get an arena. We got Foote Field and a stadium, then the Saville Centre and a curling rink, but no arena."

Ironically, while the new centre meets a whole host of student needs and will take the pressure off existing space in Van Vliet for campus recreation programs, there are still no plans for a new ice rink, either at PAW or the Go Centre.

"We have identified a piece of land on the south campus for a future arena, but our best chance of getting this would be if Edmonton wins the right to host the world's fair," says Barry.

The Steadward Centre will occupy the first floor of the new PAW building, the second floor will be devoted to student space and the third floor will house the new Alberta Institute for Physical Activity and Health Research, consisting of physical education and recreation researchers in health-related fields. The climbing wall will stretch the full three stories, and an indoor atrium, or "social street," will fall between the east wing and the Butterdome's main gym. The east wing will be partially renovated to form part of the complex.

The current fitness centre in Van Vliet West will be converted back into a gymnasium for campus recreation programs. Gymnasiums currently used for varsity athletics will also be freed up for campus recreation once

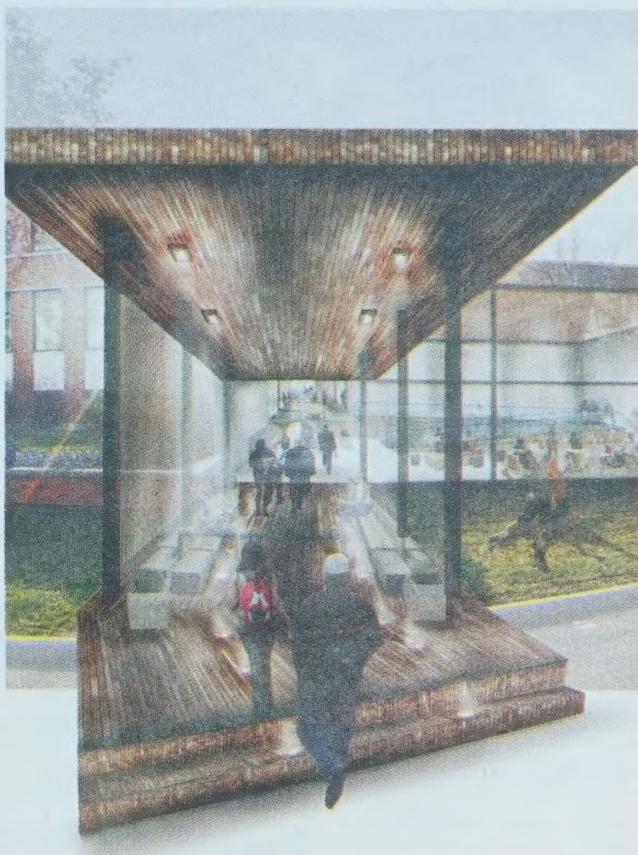
the Bears and Pandas volleyball and basketball programs move to the Go Centre.

Aside from a substantial donation from an anonymous donor, says Barry, the project could not have succeeded without an extraordinary partnership between the university and Students' Union. "Something that collaborative between the students and the university is almost mind-boggling," he says, adding that everyone shared the same vision.

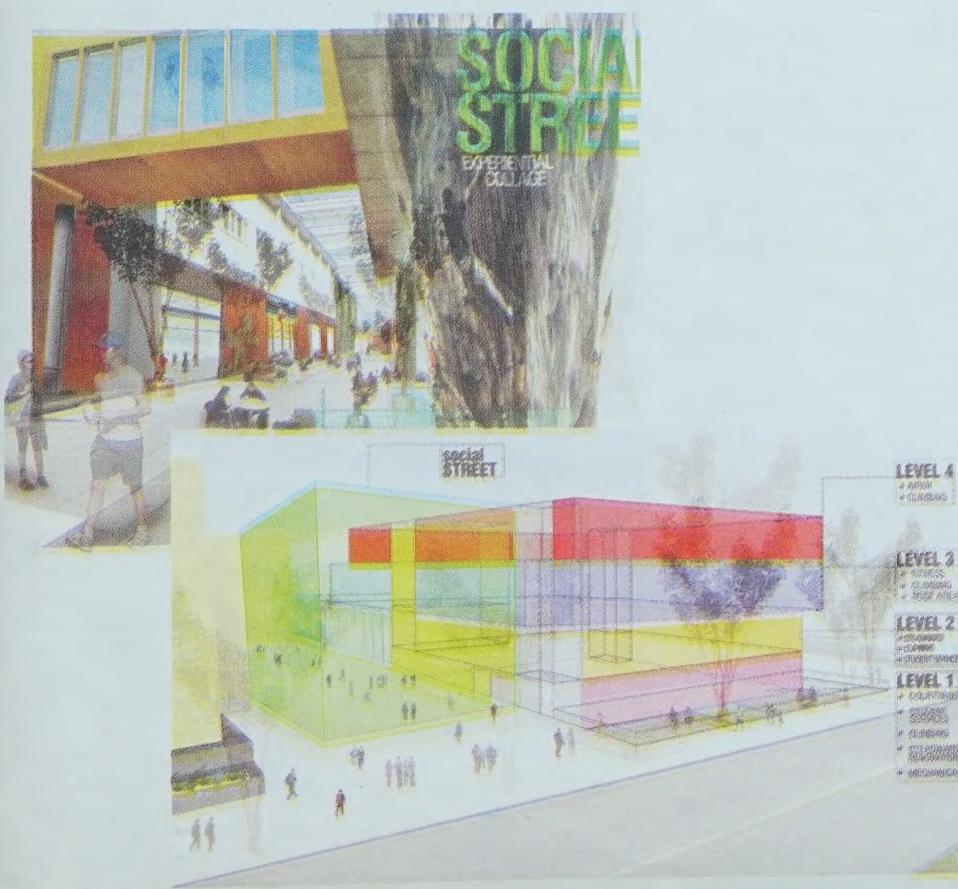
More information on the Students' Union Physical Activity and Wellness Centre: www.campusrec.ualberta.ca/pdfs/PAWC2010.pdf.

“It’s more than just a fitness centre; it’s about holistic health and wellness, and it will really put us on the map.”

John Barry



Artist's rendition of north entry into the proposed new Students' Union Physical Activity and Wellness Centre.



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Changing lives and reviving hope in rural Peru

Michael Davies-Venn

A University of Alberta student is working on a project that will virtually bring two rural communities that have very little in common closer together.

For example, the children in Medford, Wisconsin are likely to grow up completing high school and attending university. But that is not generally the case in Cieneguilla, Peru. There, says U of A student Matt Jeppesen, parents' disenchantment with the value of education sees them deciding between keeping their children in schools and having them as helping hands on farms. The project led by Jeppesen, who hails from Medford, could help make certain the educational destiny of many of Peru's children.

Jeppesen, who currently resides at the university's International House, says he imagined a world quite different from his own when he was growing up in Wisconsin. It was a perception he later confirmed when someone in a rural community in Peru, where he was volunteering, asked him if everyone in Wisconsin had robots in their homes.

Jeppesen went to Peru to care for boys in an orphanage after completing high school at United World College of the Atlantic in Wales—an international school. He says his exposure to students from South America during high school was his first real-life international exposure. After volunteering for almost a year in Peru, the second-year art and design student has won a \$10,000

grant from the Davis Foundation for Peace—a U.S.-based philanthropic organization—that he will use to build and equip computer labs in two high schools in Peru. Many of the students have never seen computers before.

"A misconception we have as North Americans is this idea that because someone is poor they wouldn't be interested in something like a computer," Jeppesen said. "People say things like, 'you can't teach those kids computer skills, they wouldn't understand.' My response is, 'these kids are just as smart as anyone. You give them the path to start and they will explore.'"

Matt Jeppesen And the Peruvian students at La Libertad in Cieneguilla and Matsu Uzumi in Villa María del Triunfo will have plenty to explore once their labs are fitted with 10 computers each, which will be connected to the Internet. Both schools have agreed to hire and pay computer instructors. But Jeppesen's most valued collaborative success has been winning the hearts

and minds of the students' parents, who he says are anxious to see their children get access to the technology and are now less likely to continue to pull them from classrooms in favour of work on the farm.

"All the parents have pledged about \$2 a month, which would go towards the cost of upkeep of the labs and paying for the Internet connection," Jeppesen said. "Although their community is poor, they have come to see how important these computer labs are and are willing to make a sacrifice in order to have them. And the parents themselves proposed making the contribution."

Jeppesen will go to Peru in May for three months and will, during that time, work with a friend to install computers and run an after-school computer program for students at both schools. He will also be working with members of the communities and a local non-governmental organization, which is working to improve education and living standards in Lima and the Peruvian Andes.

While Jeppesen's project helps bridge the communities' youth to the rest of the world, it will also help improve the lives of adults as well. Jeppesen says the labs will be the only such facilities within an hour's drive

from the city of Lima, and will also serve as an Internet café and computer training centre for those who currently cannot get jobs that require computer use.

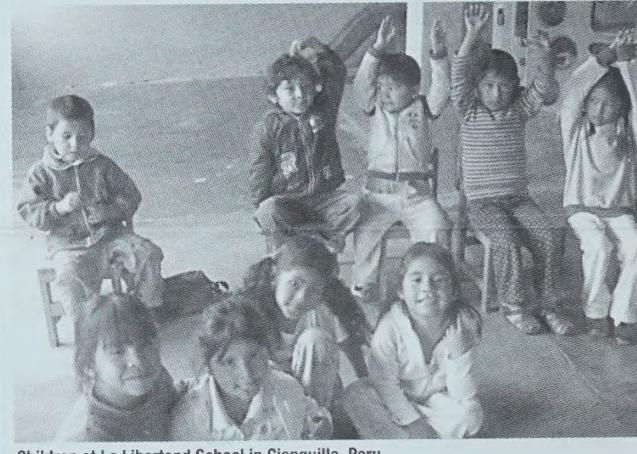
"It will be a life-transforming experience for the children as well as their parents. They know that people are using computers 'out there.' It's not like they live in the past; they just don't have the tools," said Jeppesen. "We're looking at a long-term solution."

The children will only have to wait until the end of August to see the results of their efforts, because by then Jeppesen says they will have used the skills learned during the after-school programs to create a window through which the world could learn about their lives. "The kids will create a website. It will be a great thing, a source of pride when I tell them that people in Wisconsin and Canada will come and look at their work," said Jeppesen, adding the next time the children have a question about robots, they won't have to wait for an answer; they can look it up online. "When the average North American has a question, they just Google it. But when these kids have similar questions, queries stay with

them because no one can answer them. Suddenly all the world will be available to them."

Jeppesen's venture is one of two U of A projects that won Davis Projects for Peace awards this year. It's the first time an institution outside the U.S. has won more than one award in the same year. A group of four U of A students who will be building a nutrition health center in Guatemala won the other award. It's also the third consecutive year that U of A International House residents have won awards since the foundation started giving the prize in 2008.

Nancy Hannemann, director of the U of A's Global Education Program, says the programs encourage socially responsible leadership in students. "Our program teaches students to have an understanding of partnership and sustainability, and those are things that we discuss at International House," she said. "We live in a world where all of our actions impacts other people, and what they do impact us. We do have a moral responsibility, not only to our local immediate communities but also to our broader communities that we're connected with worldwide." ■



Children at La Libertad School in Cieneguilla, Peru.

U of A staffers sign up to help create a better world

Michael Davies-Venn

More than 50 University of Alberta researchers and professors emeriti have expressed interest in volunteering with a new organization that promises to help developing countries improve their educational systems.

A former chair with the U of A's Department of Accounting and Information Management Systems, and a U of A alumnus, John Waterhouse, says he was gratified by the enthusiastic U of A response to his presentation April 23 on the organization Academics for Higher Education and Development, after which 53 current and retired professors indicated their interests to help build a better world.

"It is a wonderful opportunity for researchers and support staff to engage developing countries in higher education," Waterhouse said about the organization, which is modeled after Doctors without Borders, the world's leading independent medical relief organization. "It's an opportunity for them to give back to the world some of the benefits that they've received from higher education."

Engaging with the wider world has been a mission of the U of A for more than a century, says Art Quinney,

U of A deputy provost. "Any time we have people from here working with those from other parts of the world, the opportunities start to develop," Quinney said. "Once you start making these kinds of efforts, you don't know where the end is going to be. And there probably would never be an end; that's what we'd like to see."

He says the organization provides a great opportunity that supports the university's efforts at international engagement, some of which is directed at uplifting people, including those outside the university and around the world.

At least one such example, showing the growing involvement of the university's work around the world, could be seen in a collaboration initiated by a U of A alumnus, Dru Cahoon, who's assisting in the development of a dental program to benefit people in rural Rwanda. Thomas Stevenson, vice-chair of the Department of Dentistry, who attended the presentation by Waterhouse, said he wanted to know how the organization could support existing efforts. Stevenson says pictures of dental students in Rwanda touched him.

"I was looking at these guys who are running the dental program in Rwanda, and the students had no equipment," Stevenson said. "It was

Once you start making these kinds of efforts, you don't know where the end is going to be. And there probably would never be an end; that's what we'd like to see."

Art Quinney

pertinent because the students looked just like my students. So I thought we could send some technology and expertise to help, because we know how to build a dental school."

Quinney says every little bit helps in development initiatives and that volunteers do not have to be faculty to sign up with Academics for Higher Education and Development, which he says provides an added opportunity to help redress some of the problems in the developing world.

"There are growing inequities in many parts of the world, and we're very fortunate to live and work in the part of the world that does have advantages," Quinney said. "We know that there are people who do not

have these same advantages; if we can share with them our expertise, I think there's a sense of fulfillment, of trying to make things better."

The organization works to help build capacity in higher education among countries that are on the bottom half of the United Nations Human Development Report by sending volunteers to help on a range of projects, from developing basic administrative processes like a student registration system to developing academic plans for universities in developing countries. Waterhouse was recently in Liberia where he worked with the president of the University of Liberia, to develop an academic plan that he says will bring the university forward for the next five years.

"The plan focused on what's needed at the university from an administrative point of view to bring the university up to international standards," said Waterhouse. He said he decided to go to the war-torn West African country because he felt he had something to contribute from his years of experience.

"The needs are so great, and what people have to contribute is so potentially valuable that they should take themselves out of their daily routine and contribute," said the former

U of A administrator.

Kim Noels, a U of A psychology professor, heard Waterhouse's call to help build developing countries and signed up after the presentation. She hopes that maybe she can help others, especially the younger generation, make positive changes in the world and achieve their goals.

"As an academic, I'd like to know that the work we do can be meaningful to people in a practical sort of way. And I'd like to convey information that would be useful in other people's lives and learn from other people."

Quinney says he'd encourage other faculty and support staff to think of ways that they can help by creating a project, or even simply visiting the organization's website, to learn more about the organization. He says every little bit helps and that making a difference only requires one person's contribution.

Stevenson underscored that point. He said, "If we do not do something, then we have done nothing. I don't expect to move mountains, but I bet we could make a difference."

Staff and faculty interested in volunteering are encouraged to contact Quinney at 780-492-8138, art.quinney@ualberta.ca or Phil E. Okeke-Ihejirika at 780-492-9919, pukeke@ualberta.ca. ■

Making it all look natural in the classroom

Michael Brown

Admittedly, teaching doesn't come naturally to Stuart Landon.

Landon, who was recently awarded a Rutherford Award for Excellence in Undergraduate Teaching, says he pursued academia for the research, while he viewed teaching as a means to an end.

"I got into being an academic because I wanted to do research," said Landon, whose interests lie in empirical macroeconomics and public expenditure. "At first I thought teaching was something you did because you had to, but that you became more committed to it through time."

"I don't think teaching is an easy thing at all, at least that's how it is for me."

Despite his instructional misgivings, Landon says he admires the simple economics of an education.

"Students come and they're trying to learn something, and they're also paying for a product, so you try to deliver something that is a good product," said the veteran economist. "I think that's the main thing. Mostly, I try to do a good job at what I do."

When Landon joined the Department of Economics in 1985, all he knew about teaching was what he wasn't going to do.

"From the first day I started teaching I said, 'I don't want to do the things that I didn't like when professors did them in my classes when I was student,'" he said. "I did like that some professors tried to make learning interesting by relating the things to the real world, but there were some things that professors did that I didn't like at all."

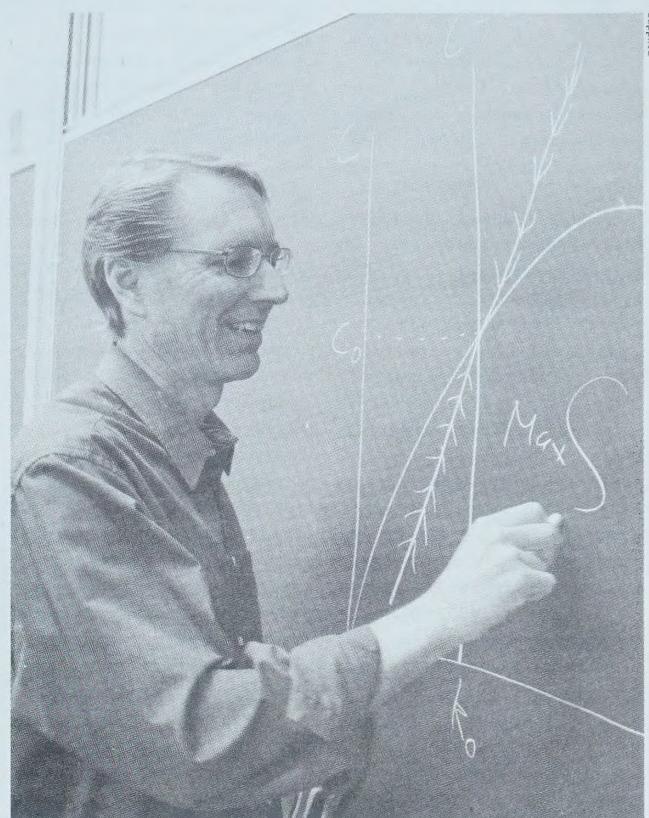
And while Landon uses his own student experiences to guide his teaching, he is actually a lecture-hall traditionalist at heart, only ever feeling totally comfortable with a piece of chalk in his hand. "I guess I'm pretty conservative and old fashioned," said Landon. "Every time one more blackboard gets taken out of the university, I'm sad."

What Landon felt he lacked in pure teaching talent he was going to make up for in preparation. "I believe the key to a successful class is to have a real idea of where the course is going and what I want to achieve," he said, adding the best way to keep students interested is to be enthusiastic. "I try to keep the pace going in my classes, not always successfully, but that is one of the things that I try and do."

And while it is no secret that core economics classes can be a little dry, Landon says he livens up the subject matter by using real-life examples, encouraging questions and plying it all with a dash of humour when he can. The economist says that to sell his version of that class it is important that he not look at his notes, a feat he has mastered only in the last decade. "I try to make it look like it is just off the top of my head, but it's not; I'm like an actor." ■

“Students come and they’re trying to learn something, and they’re also paying for a product, so you try to deliver something that is a good product.”

Stuart Landon



Stuart Landon is at home at a blackboard.

Academics mentor students to success

Noreen Remtulla

A handful of researchers and professors are slowly moulding future generations of scientists. They work regularly with high-school students, teaching them about research and science and mentoring them to success, as part of the Sanofi-Aventis BioTalent Challenge. The program partners high-school students with professional researchers who work as mentors to encourage and support students' scientific projects.

Denise Hemmings, assistant professor with the Faculty of Medicine & Dentistry, was awarded a Special Mentor Recognition award at the competition and awards ceremony of the program last month.

The award honours the many years undertaken to mentor high-school students in the program and recognizes mentors for their leadership and contributions of time and materials. Many of the students who have been mentored by Hemmings in the program as high-school students are now pursuing their undergraduate degrees.

"I have to accept the award on behalf of all of my colleagues who also contribute their time, energy and expertise to provide a positive environment for these students to really experience what research is all about," said Hemmings.

The Sanofi-Aventis BioTalent Challenge was implemented in Edmonton a decade ago with the goal of raising awareness among students, educators and the public about the emerging science of biotechnology and its applications in health care, agriculture and the environment. The event also aims to encourage students to pursue further education and careers in biotechnology. High-school students in grades 10 to 12 are eligible to participate in the challenge. The

student experience includes writing research proposals, conducting experiments in a lab settings and competing for cash prizes.

Mike Liu's father approached Hemmings in 2005, looking to gain lab experience for Liu, who was in Grade 10 at the time. Liu was Hemmings' first summer student and her introduction to the Sanofi-Aventis BioTalent Challenge.

"[If not for meeting Hemmings] I would not even have had a chance to work in a real research lab, let alone acquire the multitude of knowledge about lab procedures and techniques," said Liu, who is now an undergraduate student at the U of A.

Hemmings says mentors support budding scientists and guide them through all stages of their experiments.

"These young and enthusiastic students work diligently and are truly glad to be given an opportunity to spend time in a university lab," said Hemmings.

Hemmings includes her students in all aspects of her lab, including meetings and discussions with graduate students and technicians.

"I think we sometimes underestimate the abilities, knowledge and understanding of these young students."

The challenge program works on the assumption that students will better understand the practice of science by carrying out their own experiments. They will also be exposed to laboratory techniques and critical thinking and learn new strategies for problem solving.

Other members of the Faculty of Medicine & Dentistry are also mentoring high-school students.

Dean Befus, professor in pulmonary medicine, believes mentorship is a commitment to the community in Alberta and part of the role he plays at a university in society.

"I find mentorship to be challeng-

ing and rewarding—young minds are always a great challenge and opportunity for one's growth," he said.

Befus says helping students understand and appreciate science and the processes that go along with it is enjoyable.

Bernard Thebaud, also with the faculty, highlights the importance of engaging youth and says it is crucial to recruit the brightest and most motivated students.

"One of our roles is to mentor the next generation of clinician scientists," said Thebaud. "As the Chinese proverb says, 'If you want one year of

prosperity, grow seeds; if you want 10 years of prosperity, grow trees; if you want 100 years of prosperity, grow people.'"

Thebaud takes that adage to heart. Moses Fung, a high-school student Thebaud mentored, won first place with his project called "Scientific rationale and therapeutic potential of endothelial colony forming cells to regenerate lung damage."

"It is mostly Moses' talent that had him win first prize in this competition. My goal is to keep Moses' passion alive so he chooses to be a clinician or scientist as a profession," said Thebaud. ■

Bovine genomics program expands to include all livestock

Michel Proulx

To ensure the Alberta livestock industry remains competitive at the global level, Alberta Innovates – Bio Solutions is providing \$2.25 million, and the Alberta Livestock and Meat Agency \$1.5 million, of new funding to Livestock Gentec, formerly the Alberta Bovine Genomics Program.

The new funding, which builds on the foundation of more than \$10 million contributed previously by the University of Alberta and the ministries of advanced education and technology and agriculture and rural development—as well as other supporters—will increase Livestock Gentec's research capacity and provide additional support for business development, industry liaison and technology transfer. It will also position Livestock Gentec as the national hub for livestock genomics.

"Sequencing genomes helps identify with greater precision the genetic markers that enable breeders to produce more efficient cattle and swine, as well

as improve domestic livestock species, which in turn will produce higher quality milk and meat products in a way that consumers are looking for," explained Stephen Moore, scientific director of the centre.

"It makes sense to invest in an Alberta program that is already a worldwide leader in that field," said Stan Blade, CEO of Alberta Innovates – Bio Solutions, who added that livestock genomics is a key means for Alberta's livestock and meat sector to differentiate itself and compete at a global level.

Livestock Gentec brings together a group of highly skilled scientists from university and government research laboratories that are focused on providing new solutions to help improve the competitiveness and sustainability of the livestock sector. The centre, in its previous iteration, had become one of the best groups in the world at livestock genomics research, development and technology transfer.

Some of the centre's most recent accomplishments include major participation in the first-ever sequencing of the bovine genome; being the first in

Canada to sequence a dairy bull and a beef bull, re-enforcing its position at the forefront of genomics science worldwide; sequencing a Brazilian bull and identifying genetic markers that predict the temperament of the animal; and, to date, finding more than 125 genetic markers to improve cattle.

The information gathered from sequencing helps breeders make fast improvements to farmed animals. It's expected that to satisfy global food demand in 2050, food producers will have to double the amount of food they produce. ■

“Sequencing genomes helps identify with greater precision the generic markers that enable breeders to produce more efficient cattle and swine.”

Stephen Moore

The changing face of global politics

Geoff McMaster

Years of teaching international relations drove the reality home for Tom Keating and Andy Knight. Reflecting on countless classroom discussions over the course of their careers, the two U of A political scientists realized their discipline was in the midst of a revolution. The world of conventional politics was transforming almost beyond recognition and ruling assumptions only two decades old were fast becoming dated.

It was high time for a new textbook on international relations, one that took into account a complex web of actors and shifting power relationships that define today's world. The result is *Global Politics*, a comprehensive undergraduate introduction to a world in flux, and "a departure from most textbooks" dealing with the subject, say its authors.

For as Knight and Keating argue, international relations was until very recently understood as the interaction among autonomous states pursuing separate national interests. State nations were the main actors in global politics; they held the power and legitimacy, made crucial legal decisions regarding distribution of wealth and generally held sole authority over people who lived within their borders.

Such states still exist, of course. But their autonomy is eroding, giving way to a far more elusive system of exchange, power and influence where many of the main actors are becoming difficult to define or contain.

"Given the prominence and influ-

ence of non-state actors—individuals, non-governmental organizations, transnational and multinational corporations, regional bodies and international and global institutions—it would be irresponsible for us to maintain a rigid conception of world politics that is entirely state-centric," write the authors. "States matter, but other actors now seem to matter as well."

And so, *Global Politics*, as the book's publisher, Oxford University Press, attests, may well be the "first international relations text to be fully grounded in the realities of the 21st century," taking on the big issues of our age, such as conflict and conflict resolution, war and peace, environmental crisis and economic challenge.

Perhaps not surprisingly, Knight and Keating allude in the introduction to a defining moment for this new world order in the events of 9-11. To begin with, the terrorist attacks were carried out by Al-Qaeda, a non-state organization with support from some states, but with no particular allegiance to a single nation.

"The attack itself represented both the national and the global dimensions of politics in the contemporary era," argue the authors, reflecting "a different set of images, one that identifies a more global (non-national) character. The towers were named for 'world' trade, not national trade, and the occupants came from many different countries."

Furthermore, say the authors, the events of that day had "implications for about 60 states within the international system, affected the stock markets around the globe and were

"The trend towards borders no longer contain cultures as they once did."

Tom Keating & Andy Knight

met by military actions of the United States and its coalition partners."

The trend towards globalization also means that borders no longer contain cultures as they once did. Witness the explosion of mass media, the unprecedented spread of cultural phenomena such as the Harry Potter books and movies around the planet, and the ubiquitous presence of corporations like McDonald's and Walmart. By the same token, "borders are becoming less relevant in distinguishing communities and can no longer adequately define global politics . . ."

The movement of capital also increasingly ignores borders or state control, write Keating and Knight, and the result has been a rise in global wealth along with a widening gap between rich and poor. Since multinational corporations have been largely responsible for this form of "hyper-liberal capitalism," those left out in the cold have had to find avenues for resistance that fall outside of traditional democracy. Examples can be found "within the many anti-globalization protests, from Seattle to Genoa."

"In this sense, globalization has given rise to a counter-project—one ostensibly driven by a global society that has little respect for the buffers of state boundaries." ■

news [shorts]

folio presents a sample of some of the research stories that recently appeared on ExpressNews, the U of A's online news source, and other campus news sources. To read more, go to www.expressnews.ualberta.ca.

Celebrating new professors: Inaugural Professorial Lectures

The third Inaugural Professorial Lectures in a span of just six short months was held April 19 at the University of Alberta. Faculty, staff and students sat in the Allard Family Theatre eager to hear lectures from Satyabrata Kar and David Bigam, professors of medicine and surgery respectively.

Kar captured the audience's attention with his first slide—a series of self-portraits by artist William Uttermilhen, drawn as his Alzheimer's disease became more pervasive over a span of five years. By 2000, his self-portrait contained no details like his artwork did prior to the disease. Only a floating head with two simple eyes appeared in his last drawing, compared to an image he drew in 1967 with detailed facial features, facial hair and shading to portray a three-dimensional character.

Kar's lecture showcased some recent developments of Alzheimer's disease, which was discovered in 1906, but Kar explained most developments have only occurred in the last two decades. "With the increase in our life span," he said, "it is estimated that the number of Alzheimer's disease cases will increase from 27 million in 2006 to 106 million by 2050, unless better treatment strategies are developed." Drugs available today only temporarily address symptomatic relief, he said.

Alzheimer's disease causes brain atrophy, or shrinkage, and loss of neurons to selected regions in the brain. Kar is also investigating various mechanisms to determine the vulnerability of these neurons and how to protect them.

Bigam, an alumnus of the U of A and program director of the Clinician Investigator Program, talked to his fellow colleagues about the program and its benefits. The program was initiated in 1995 by the Royal College of Physicians and Surgeons of Canada and was implemented at the U of A in 2002 by the late Jody Ginsberg. The program provides a formal research education pathway within existing specialty or subspecialty Royal College programs. The program promotes a research environment in clinician training programs and enhances the training of needed clinician-scientists. "The program introduces residents to the world of research, which may have not otherwise be seen," said Bigam.

Philip Baker, dean of the Faculty of Medicine & Dentistry, addressed the audience: "It is evenings like tonight where we celebrate our colleagues and celebrate new professors, through the inaugural lecture series."

Engineering undergrad gets to the root of dental problem

If you get braces, avoiding popcorn may prove the least of your worries. Braces apply pressure to your teeth, and this can occasionally cause the roots to break down—a problem called root resorption.

Other causes abound: any kind of accidental trauma to a tooth can also cause root resorption. No matter what the cause, the outcome is that you lose the tooth.

Engineering student Nick Gilmour may help change that. His Dean's Research Award project is based on a contribution to research that looks at using low-intensity pulsed ultrasound to treat root resorption.

Gilmour explains the basics: "You expose a tooth to ultrasound, which applies a rhythmic stress to the tooth root. The cells respond to that stress by gradually remodelling the root—building it up." In other words, the right kind of ultrasound applied in the right kind of way could prompt the body to repair the damage of root resorption. As a result, says Gilmour, fewer teeth would have to be pulled as a result of accidents or through orthodontic treatments.

University centre helps Iraq develop science teacher education

As a lead member of UNESCO's Teacher Training Network for Iraq, the Faculty of Education at the University of Alberta has been contracted to work with four Iraqi universities to develop teacher education resources in physics, chemistry, biology, mathematics, geology and the environment.

The project, led by Frank Jenkins, co-director of the U of A's Centre for Mathematics, Science and Technology Education, is a collaboration with UNESCO and Iraqi educators, and will help develop teaching resources that infuse inquiry oriented, student-focused teaching approaches into science teacher education programs at Salahaddin University, the University of Baghdad, Anbar University and the University of Basra.

Sociology student picked by home-town team in CFL draft

Third-year U of A sociology student Corbin Sharun, a former quarterback with the Strathcona Lords and St. Francis Xavier University X-Men, was picked by the Edmonton Eskimos during the CFL entry draft held May 4. The 21-year-old safety, who was selected with the Eskimos final pick—43rd overall—has one more season of junior eligibility and three more of CIS play.

A Leduc native, Sharun, who stands six-feet tall and weighs 210 pounds, won three city high school championships at Strathcona from 2003–05.



"The Good Woman of Setzuan" will run at the Timms Centre for the Arts from May 13–22.

talks & events

Talks and Events listings do not accept submissions via fax, mail, e-mail or phone. Please enter events you'd like to appear in folio and on ExpressNews at: www.uofaweb.ualberta.ca/events/submit.cfm.

A more comprehensive list of events is available online at www.events.ualberta.ca. Deadline: noon one week prior to publication. Entries will be edited for style and length.

Until June 13

The Great Pretenders. This exhibit, subtitled "Questioning the Meaning of Authenticity," aims to expand the meaning of authenticity, to move beyond the dichotomous labels of real versus fake. The exhibit designed for guests to explore what is real is located in the south lobby of the Human Ecology building.

May 7–9

Training for Social Action Trainers. Training for Social Action Trainers is an intensive training designed for experienced facilitators wanting to revitalize their work, new trainers wanting to inspire, teachers, community leaders and activists, anyone wanting to take their skills to a new level and learn how training can be used more effectively. 6 p.m. KIVA Room 2-103 Education Centre. For more information, go to www.apirg.org.

May 10

Department of Chemistry Visiting Speaker Lecture: Fighting antibiotic resistance. Presented by Karine Auclair, Department of Chemistry, McGill University, 11-11:50 a.m. E3-25 Chemistry Centre, Gunning/Lemieux.

Engagement with Diverse Communities in Health Care. Lloy Wylie, University of British Columbia, and Co-founder of the Young Researchers Network in ECSA-C. Sponsored by the Collaborative Research in Ethnicity, Social Care and Health Program. Noon-1:30 p.m. 6-10 D University Terrace.

May 11–16

Advanced Training of Trainers. An opportunity to deepen and broaden your facilitation skills in an advanced workshop open only to graduates of the Training for Social Action Trainers. Together we'll tackle

some of training's biggest challenges—including doing cross-cultural work, handling conflict and strong emotions, and modifying workshop designs on the fly—and experiment with new solutions. 6 p.m., TBA HUB International. For more information, go to www.apirg.org.

May 12

Challenges and Opportunities in Pulmonary Rehabilitation – or Why an Australian Physical Therapist is so Far from Home. Presented by Anne Holland, associate professor in the Department of Physical Therapy at La Trobe University Alfred Hospital, Melbourne, Australia. Noon-1 p.m., Rm 2-55 Corbett Hall.

Alberta Injury Control

Teleconference. Sharon Schoeler and Cathy Gladwin will present a seminar entitled, "Provincial ATV working group update & research update." 9-10 a.m. 4075 Research Transition Facility. To register, go to www.acir.ca.

SEE the Research at Work Seminar Series. "Understanding Greenhouse Gas Emissions from Oil Sands Tailings Ponds and its Implications" seminar given by Tariq Siddique, associate professor of Renewable Resources. Registration starts at noon, seminar starts at 12:15 p.m. Stollery Executive Development Centre.

Cell Biology Visiting Speaker. John M. Archibald, associate professor in the Department of Biochemistry & Molecular Biology, Dalhousie University, presents "Cells within cells: endosymbiosis and genome mosaicism in microbial eukaryotes." 9:30-10:30 a.m. 628 Medical Sciences.

The Magnifique Wine and Cheese Fantasmagoria. The Magnifique Wine and Cheese Fantasmagoria is a fundraising event benefiting the Canadian Studies Institute. It features cheeses from la Maison Chaput, an

artisan and family-managed dairy farm from Chateauguay, Quebec, and an outstanding selection of international white and red wines. 6-10 p.m. 1-07 Pavillon Lacerte.

Exploding Nutrition Myths with Brenda Davis. Brenda Davis, registered dietitian, internationally acclaimed speaker, and author of several books that have become classics in the field of vegetarian nutrition, is coming to the U of A to explore some of the misconceptions associated with vegetarian, vegan and raw vegan diets. 7-9 p.m., 1-003 Natural Resources Engineering Facility.

May 13–22

U of A Studio Theatre: The Good Woman of Setzuan by Bertolt Brecht. Tickets \$5-\$20 available at the Timms box office one hour before each performance. May 13-22, 2010. \$5 preview Wednesday, May 12; matinee, Thursday, May 20, 12:30 p.m. No show Sunday, May 16, 7:30 p.m. Timms Centre for the Arts.

May 13

Water Allocation in Alberta: Issues, Challenges, Solutions. David Percy, chair in energy law and policy, will talk about the allocation of water supplies in Alberta. Increases in population, a renewed interest in water and the environment, economic growth and new demands have all led to a deep examination of our current water allocation management system. 4:30-6:30 p.m. U of A Calgary Centre, 120-333 5th Ave S.W.

May 14

Let's Talk Science All Science Challenge. The All Science Challenge is a one day event for students in grades 6-8 where they compete in teams to answer trivia-style questions and complete hands-on challenges.

May 16

The 2010 Community Action Dash.

The Community Action Dash is a 10 km run/5 km walk put on by Action for Healthy Communities. Participants complete a route that weaves through the McCauley, Alberta Avenue and Parkdale neighbourhoods. This year promises to be exciting, with the partnership with Primavera, a garden festival put on by the McCauley's Italian community. www.communityactiondash.webs.com.

May 18

2010 RU Lemieux Lecture on Biotechnology. This year's lecturer is Roger Y Tsien, Howard Hughes Medical Institute, and the departments of pharmacology and chemistry & biochemistry, University of California, San Diego. Professor Tsien received the Nobel Prize in Chemistry in 2008. 3-5 p.m. Education North 2-115 Education Centre.

May 18 to 21

Process Control Boot Camp – Level 1. Learn the basics of practical control engineering with this unique combination of lecture, simulation and experimental laboratories in an intensive four-day training course with one of the world's foremost process control groups. For more information, go to www.uofaweb.ualberta.ca/cme/cpcbootcamp.cfm.

May 19

May 19

Graduate Student Writing Workshop: Overcoming Procrastination and Writer's Block. This seminar will explore the psychological and physical causes of procrastination and introduce strategies that may help you to cope with or overcome writing-avoidance behaviours. Fee: \$40. To register, contact the Academic Support Centre at 780-492-2682.

May 20

Research Forum Series. Hope in the Professional Helping Relationship: Toward Nuanced Understandings for Working Intentionally with Hope. 3:30-4:30 p.m. 122 Education South Education Centre.

May 21

Communications and Technology Research Symposium 2010. Join us for the annual University of Alberta Communications and Technology Research Symposium. Visiting scholar, Linda Putnam (University of California) will speak on "Models of Engaged Scholarship: Developing the Research Paradigm." Lecture begins at 1:30 p.m., event begins at noon. Atrium, Enterprise Square.

Studio Theatre presents

GOOD WOMAN OF SETZUAN
WONG



"The Good Woman of Setzuan" will run at the Timms Centre for the Arts from May 13-22.

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WINDSOR PARK HOUSE. 1,600 sq. ft., fully furnished. 3 bdrms, the master has hot tub and en suite. Another full bathroom. 5 min walk to university. Modern appliances. Available August

23rd or so to June 30th, 2011. \$2,600/month. Utilities extra. Email lorenz@ualberta.ca.

LENDRUM. Main floor house for rent. Newly renovated, 3 bdrms, 2 full baths. Hardwood floors throughout. Large double garage with workshop close to U of A, Southgate, Saville Centre. Big windows, very clean. No pets, no smoking. Across from U of A farm. \$1,800/month. Kathy 780-554-9259.

MALMO PLAINS. Split-level home for rent. 4 bdrms, 4 baths. Double detached garage. Very close to elementary, junior high and high schools. Walking distance to Southgate LRT station, 6 km from university. Available July 1, 2010. \$1,850/month. Call 780-436-8949 or email sb1@ualberta.ca.

RENT OR OWN DOWNTOWN CONDO. Newly renovated 1300 sq. ft., 2 bdrms plus large den, minutes away from Enterprise Square and the main U of A campus. Modern design, hardwood floor, premium tiles in the kitchen and 2 baths. Air-conditioned, SW exposure with closed in balcony; extra storage locker room and 2 underground parking stalls. Large relaxation private area with outdoor pool, indoor pool, whirlpool, sauna, newly renovated exercise room, tennis court and a bicycle storage shed, beautiful social area and a guest suite. \$2,100/month. Everything included except phone and TV charges. Call 780-988-8904 or 780-405-5571.

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Nese Yuksel, professor in the Faculty of Pharmacy and Pharmaceutical Sciences, was chosen by the faculty's graduating students to receive the 2009 Bristol-Myers Squibb Award for Excellence in Teaching.

Augustana Campus web applications specialist **Dylan Anderson** was named Innovation Award as part of this year's Information Technology awards. Anderson was honoured by the Office of the Vice-Provost (Information) for his role in the creation of a one-of-a-kind online assessment and survey tool called WASSAIL, which was recently recognized with the 2010 Association of College and Research Libraries Instruction Section Innovation Award.

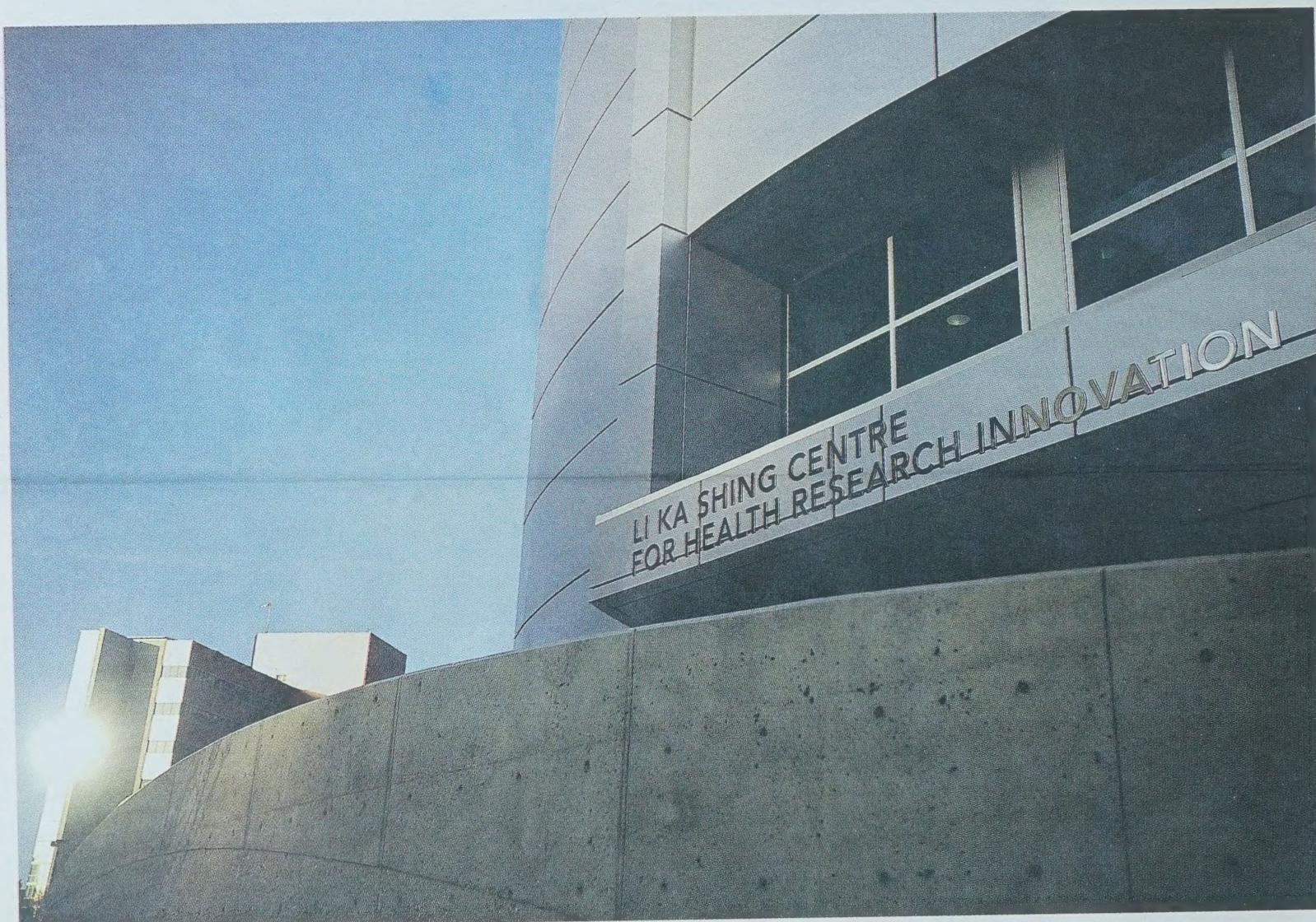
Olive Yonge, vice-provost (academic programs) is the recipient of the inaugural 2010 Senior Women Academic Administrators of

Canada Recognition Award. The organization was founded in 1987 to provide a forum and a collective voice for women in senior administrative ranks in Canadian universities, colleges and technical institutes.

Phil Currie, professor in the Department of Biological Sciences, was recently named to the Alberta Order of Excellence. Currie is an internationally renowned paleontologist whose scientific accomplishments have led to a greater understanding of dinosaurs and their historic significance. He was instrumental in the development of Alberta's Royal Tyrrell Museum and has made major contributions to paleontology on both the Canadian and the world stage through his extensive field work, academic research, writing and teaching.

the power of partnership

LI KA SHING (CANADA) FOUNDATION MAKES TRANSFORMATIVE GIFT, U OF A'S LARGEST TO DATE



(Centre) Lorne Tyrrell, the Li Ka Shing Institute of Virology's first director.

Alberta Premier Ed Stelmach (left) talks with Frank Sixt, president of the Li Ka Shing Foundation (Canada) and U of A President Indira Samarasekera at the gift announcement, held April 23.

the
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